-- *REMARKS* --

Claims 10-18 have been amended to clarify the preamble and bring claim 10 into more typical practice before the USPTO. This amendment is not made to avoid any reference. Claim 18 has been further amended, and claims 19-20 have been amended to reverse the previous amendment.

A. The amendment was objected to

Applicants have amended claims 18-20 to recite their original elements, obviating the Examiner's objection. Applicants do note that the amendment had been made to comply with the Examiner's request, as noted in the body of the previous response. As the Examiner now objects to the requested amendment, Applicants have reversed the amendment.

Withdrawal of the objection to the amendment is requested.

B. Claims 18-20, 1-8, 9, and 10-17 were rejected as nonstatutory under 35 U.S.C. §101

The §101 rejection of claims 1-20 is traversed.

The expansive language of 35 U.S.C. 101 includes "anything under the sun that is made by man" as statutory material. See, *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980). See also, MPEP §2106. A claim that requires one or more acts to be performed defines a process. A process is statutory if it requires physical acts to be performed outside the computer independent of and following the steps to be performed. If a physical transformation occurs outside the computer, a disclosure that permits a skilled artisan to practice the claimed invention, i.e., to put it to a practical use, is sufficient. MPEP §2106.

In this case, claims 18-20 require developing a pictorial representation of the business description (claim 19 requires "means for" per 35 U.S.C. 112 ¶6, and claim 20 requires computer program code for accomplishing this step)– clearly a physical transformation outside the computer, or at a minimum a computer related process limited to a practical application in the technological arts. See, MPEP 2106. Therefore, claims 18-20 are statutory.

Claim 1 includes a similar limitation, as do claim 9 and 10, rendering each of those claims, and the claims depending therefrom, statutory.

The Examiner's allegation that these method steps are "merely a disembodied abstract idea" is misplaced. Clearly, a pictorial representation of a business description is not disembodied. Rather, a pictorial representation is actually *embodied*, rather than *dis*embodied. It strains credulity to argue that a "pictorial representation" is not concrete – certainly any such interpretation is unsupported by the specification and is not in accord with how one of ordinary skill in the art would interpret the term.

Additionally, the Examiner's argument based on "that the result be reproducible or repeatable to meet the tangible or concrete requirement " is ill formed. While the Examiner correctly recites a section of *In Re Swartz*, 232 F.3d 862 (Fed. Cir. 2000), the Examiner fails to properly consider its meaning. The instant claims are directed at designing an architecture for an e-business solution, and repeating the method steps does, in fact, result in an architecture for an e-business solution. Thus, the *Swartz* standard is satisfied. The deficiency identified in the *Swartz* decision was the failure of the method steps to result in its claimed utility – in other words, although Swartz claimed a method for producing cold fusion, the Swartz method did not result in cold fusion. Thus, the citation to *In Re Swartz* is particularly puzzling, as *Swartz* directly supports Applicants' position. See, *In Re Swartz*, 232 F.3d 862 (Fed. Cir. 2000).

In *Swartz*, the Federal Circuit upheld the Boards rejection of Swartz's claims to a *cold fusion process*. The Swartz court found that the utility requirement of § 101 mandates that the invention be operable to achieve useful results, citing to *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1571, 24 USPQ2d 1401, 1412 (Fed. Cir. 1992).

The *Swartz* decision was based on *actual evidence* provided by the Examiner. As noted by the Federal Circuit:

> "Here the PTO provided several references showing that results in the area of cold fusion were irreproducible. Thus the PTO provided substantial evidence that those skilled in the art would "reasonably doubt" the asserted utility and operability of cold fusion. The examiner found that Mr. Swartz had not submitted evidence of operability that would be sufficient to overcome reasonable doubt. After its review of the evidence, the Board found that Mr. Swartz had "produced no persuasive objective evidence, in our view, that overcomes the examiner's position.""

Thus, the utility problem facing Swartz is distinct from the Examiner's allegations here. In *Swartz*, the Examiner provided *evidence* that Swartz's methods did not result in cold fusion – the claimed utility. In this case, the Examiner provides *no evidence* that the claimed methods do not result in designing architecture for an e-business solution, and merely *argues* that the designed architecture can differ between persons practicing the invention.

In this case, the Examiner has not cited a single reference, much less several references, showing that results in the area of designing architectures for e-business solutions are not reproducible or repeatable. The only 'grounds' cited to support this rejection are the Examiner's own view on the timeless debate between nature and nurture ("each person would have his own distinctive description and pictorial representation and patterns since this depends on his background, culture or environment" – see p. 4 of the April 18, 2006 office action), and the Examiner provides no evidence that the Examiner is an expert in the field of psychology, philosophy or any other fields related to the distinction between nature and nurture. While Applicants do not take a position on such a weighty question, especially given the lack of relevance to the patentability of their claims, Applicants must protest the Examiner's continued rejections.

Applicants further note that the Examiner's argument is apparently limited to a statement in the form of a question – "In the instant case, it's not clear how the most important step (c) as well as other steps (a) and (b) are carried out?" First, Applicants dispute the Examiner's improper characterization of step (c) as "the most important" as each step in the method is important. Second, the Examiner has not propounded a proper prima facie case under §101 – simply stating a standard and then failing to even assert a failure to meet the standard does not assert a prima facie case. Once again, the Examiner is holding Applicants to an untenable impromptu, and extrajudicial, standard.

The Examiner argues that a human being could carry out the claim steps and argues that, therefore, the results of the method are subjective and irreproducible and not 'concrete.' Nevertheless, such an assertion is not relevant to the patentability. The Examiner fails to provide any evidence whatsoever that "each person would have his own distinctive description and pictorial representation and patterns since this depends on his background, culture or environment." See page 4 of the office action. While Applicants thank the Examiner for this concise explanation of human behavior, Applicants protest its use against their claims, and note the utter lack of support for the statement. Applicants further note that merely alleging that different people would arrive at different pictorial representations fails to state any grounds whatsoever for a rejection. The specification contains many examples of how to carry out the claims, including Tables 1, 2, and 3. Creation of the pictorial representation is in fact a concrete result, and the Examiner's incantations to the contrary are unsupportable.

These same arguments apply to the rejections of claims 1-8, 20, 10-17, 9 and 18. Withdrawal of the §101 rejections to claims 1-20 is requested.

C.   Claims 1-20 were rejected as failing to comply with the enablement requirement under 35 U.S.C. §112 ¶1

The §112 ¶1 rejection of claims 1-20 is traversed.

In order to comply with §112 ¶1, the specification must enable a person skilled in the art to make and use the claimed invention *without undue experimentation.*

Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of *Mineral Separation v. Hyde,* 242 U.S. 261, 270 (1916) which postured the question: is the experimentation needed to practice the invention undue or unreasonable? That standard is still the one to be applied. *In re Wands,* 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Accordingly, even though the statute does not use the term "undue experimentation," it has been interpreted to require that the claimed invention be enabled so that any person skilled in the art can make and use the invention without undue experimentation. *In re Wands,* 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988). See also *United States v. Telectronics, Inc.,* 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988) ("The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation."). A patent need not teach, and preferably omits, what is well known in the art. *In re Buchner,* 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.,* 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987); and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.,* 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984). Determining enablement is a question of law based on underlying factual findings. *In re Vaeck,* 947 F.2d 488, 495, 20 USPQ2d 1438, 1444 (Fed. Cir. 1991); *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.,* 750 F.2d 1569, 1576, 224 USPQ 409, 413 (Fed. Cir. 1984). See also, MPEP §2164.

The rejection is fatally deficient by failing to provide *any evidence* that undue experimentation is required. There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue." These factors include, but are not limited to: (A) The breadth of the claims; (B) The nature of the invention; (C) The state of the prior art; (D) The level of one of ordinary skill; (E) The level of predictability in the art; (F) The amount of direction provided by the inventor; (G) The existence of working examples; and (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

In *Wands*, the court noted that there was no disagreement as to the facts, but merely a disagreement as to the interpretation of the data and the conclusion to be made from the facts. *In re Wands*, 858 F.2d at 736-40, 8 USPQ2d at 1403-07. The Court held that the specification was enabling with respect to the claims at issue and found that "there was considerable direction and guidance" in the specification; there was "a high level of skill in the art at the time the application was filed;" and "all of the methods needed to practice the invention were well known." 858 F.2d at 740, 8 USPQ2d at 1406. After considering all the factors related to the enablement issue, the court concluded that "it would not require undue experimentation to obtain antibodies needed to practice the claimed invention." Id., 8 USPQ2d at 1407. See also, MPEP 2164. It is improper to conclude that a disclosure is not enabling based on an analysis of only one of the above factors while ignoring one or more of the others. *The examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of nonenablement must be based on the evidence as a whole*. 858 F.2d at 737, 740, 8 USPQ2d at 1404, 1407 (emphasis added).

Here, the Examiner failed to properly address the *Wands* factors. Rather, the Examiner simply makes an unsupported, naked allegation of undue experimentation. Such an allegation renders Applicant unable to adequately respond with evidence to counter the Examiner's allegation – hampering Applicants' ability to appropriately evaluate any grounds supporting the Examiner's position.

At most, the Examiner alleges that Applicants did not provide sufficient examples, and argues the lack of working examples. However, both allegations are erroneous, as Applicants provide sufficient examples, particularly with respect to Table 1, Table 2, and Table 3, inter alia. Furthermore, the presence of Tables 1, 2, and 3 belies the Examiner's erroneous allegation of the lack of working examples.

In addition, the fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation. *In re Certain Limited-Charge Cell Culture Microcarriers*, 221 USPQ 1165, 1174 (Int'l Trade Comm"n 1983), aff'd. sub nom., *Massachusetts Institute of Technology v. A.B. Fortia*, 774 F.2d 1104, 227 USPQ 428 (Fed. Cir. 1985). See also *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404. The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976).

Furthermore, Applicants note that including "at least one example, or demonstration to show how the method of claim 1 or 18 works" in the claim is not in accord with common practice at the PTO, and further note that such a requirement is non-statutory, impromptu, and extrajudicial. Thus, the Examiner's suggestion from the bottom of page 4 to the top of page 5 is traversed, and Applicants unequivocally demand that the Examiner provide support via a citation to any recognized authority, such as 35 U.S.C., 37 C.F.R., MPEP, or a decision of a federal court to support the Examiner's apparent view that 35 US.C. §112 ¶1 requires examples or demonstrations of how a claimed method works. The Examiner fails to cite any authority that requires applicants before the PTO to "cite an example or summary of the logic of how" claims work, and therefore, Applicants traverse this impromptu requirement. Since this rejection is nominally under §112 ¶1, a rejection must be based in light of undue experimentation (i.e. the standard), rather than including "at least one example, or demonstration to show how the method of claim 1 or 18 works."

Additionally, the Examiner entirely fails to allege, much less prove, the level of skill held by one of ordinary skill in the art. That "another Examiner who has a degree in MIS and an MBA" "has the same problem" is entirely irrelevant. At a minimum, the Examiner fails to show that those of ordinary skill in the art possess a MIS and an MBA, or that such a level of education is even common in the art. Applicants note that both the MIS and MBA degrees, while educationally impressive and commendable, do not facially appear relevant to designing e-business *architectures*. The number of times that the Examiner has read the specification is also irrelevant. See, page 8 of the September 29, 2005 office action, and the Examiner's reassertion of this 'fact' on page 5 of the April 18, 2006 office action. At a minimum, the Examiner fails to assert that those of ordinary skill in the art would find it undue to read a specification more than twice.

The Examiner states that "the specification merely explains the claims but contains no examples of how the inventions work," is a statement that the claims *satisfy* §112, and not evidence that the claims do not satisfy the statute. The Examiner apparently agrees that the specification explains the claims, yet rejects the claims under §112. The Examiner fails to cite to any authority for a proposition that the specification must provide "examples of how the inventions work" or that the "number of times" that the Examiner reads a specification affects the patentability of any claims, and therefore appears to be holding the Applicants to an impromptu and extrajudicial standard of patentability.

Applicants further traverse the Examiner's mischaracterizations of the claims. While FIGS. 7A and 7B illustrate hardware and software for implementing the claimed methods, nowhere do Applicants claim that an "architecture design program" is needed to implement the claimed invention. In addition, Applicants note that the program is described on page 18, lines 8-18 as a program "for implementing flowchart 10" and that "those having ordinary skill in the art will appreciate the various techniques for developing architecture design program 171 (e.g. object oriented programming) as well as an interaction between graphical user interface 170 and architecture design program 171." Applicants further note that "architecture design program 171 can be partially or fully implemented by analog circuitry,

digital circuitry, or both as appreciated by those having ordinary skill in the art." Id. Based on this disclosure, the Examiner is cordially invited to read the specification a third time "especially page 18, lines 8-27" as alleged on page 5 of the April 18, 2006 office action. Applicants gently remind the Examiner that a patent need not teach, and *preferably omits*, what is well known in the art. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991)(emphasis added).

This rejection must fall, at a minimum, because the Examiner is unable to even assert, much less prove, a prima facie case of non-enablement.

Withdrawal of the rejections of claims 1-20 is requested.

C. Claims 1-20 were rejected as indefinite under 35 U.S.C. §112 ¶2

The §112 rejection of claims 1-20 is traversed. In order to satisfy the strictures of §112 ¶2, the claims need only set out and circumscribe the invention with a reasonable degree of precision and particularity. The definiteness of language is analyzed, not in a vacuum, but in light of the teachings of the disclosure as the disclosure would be interpreted by one of ordinary skill in the art.

Claims 18-20 have been amended to reverse the Examiner's previously requested amendment, obviating the Examiner's rejection of the word "serves" over the word "serve". Applicant is confident that those of ordinary skill in the art would find either "serves" or "serve" definite in light of the teachings of the disclosure.

Applicants maintain their traverse of the rejections to claims 1 and 9 based on "it's not clear the relationship between the four cited patterns..." as cited on page 6 of the April 18, 2006 office action. The Examiner fails to cite to any authority for a proposition that the claims must provide a relationship between the pictorial representation serves as a documentation and the patterns and designing the architecture. The Examiner fails to cite to any authority that Applicants must "cite to an example". One of ordinary skill in the art would find the language of the claims definite when analyzed in light of the teachings of the disclosure.

Instead, Applicants note that a §112 ¶2 rejection, to be maintained, must show that the claims are indefinite, analyzing the claims, not in a vacuum, but in light of the teachings of the disclosure as the disclosure would be interpreted by one of ordinary skill in the art. Here, Applicants note that the Examiner has not even alleged such a rejection against claims 1 or 9. Those of ordinary skill in the art would find claim 1 definite when the language of the claim is analyzed in light of the teachings of the disclosure.

Applicants traverse the rejection of claim 8. Claim 8 recites "further comprising" rather than modifying any particular element of claim 1. Therefore, the Examiner's rejection seems to be a non sequitur – claim 8 does not limit any particular step of claim 1, but rather adds an element to the claim. Applicants are unable to determine the source of the Examiner's confusion.

This rejection must fall, as the Examiner has not alleged, much less proven, a prima facie case of indefiniteness.

Withdrawal of the rejections to claims 1-20 is requested.

D.   Claims 10-17, and 20 were rejected as anticipated by Calver

The §102(e) rejection of claims 10-17 and 20 as anticipated by Calver is traversed. Contrary to the Examiner's assertions, the computer readable code does instruct a computer to carry out steps, and therefore have patentable effect. These steps are not merely code, but provide a series of steps for a computer to carry out. In an effort to expedite prosecution, these claims have been amended to conform to more typical claim structure before the PTO, but this amendment has not been made to avoid any reference.

Additionally, Calver does not disclose computer readable code for establishing integration patterns that are identifiable within the pictorial representation, or computer readable code for establishing one or more composite patterns, as claimed in claim 10. At most, Calver discloses a small business web-based portal method and system for interactively providing user-tailored information. Applicants note the Examiner's failure to identify anywhere in Calver that discloses the steps carried out by the claimed computer program product in a computer readable medium.

Applicants also note that the goal of examination is to *clearly* articulate any rejection *early* in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply competently at the earliest opportunity. MPEP §706. The Examiner's failure to provide clear articulation for the anticipation rejection has prejudiced Applicants' ability to respond, as Applicant is not fully on notice of the basis for the Examiner's rejection.

Withdrawal of the rejections to claims 10-17 and 20 is requested.

E.   Claims 18, 19, 1-8, and 9 were rejected as unpatentable over Calver in view of Gryphon

The §103(a) rejection of claims 18-19, 1-8, and 9 is traversed. In order to maintain this rejection, each and every element of the claims must be taught or suggested by the references in as great detail as claimed.

Calver in view of Gryphon fails to teach or suggest, at least, establishing a plurality of patterns within the pictorial representation, the patterns indicative of various implementations of the business description as claimed in claim 18. The Examiner apparently relies on Gryphon for such a teaching, and correctly does not rely on Calver. The Examiner solely relies on Calver for a teaching of computer readable code. While Applicants do not concede that Calver teaches computer readable code, Calver does not cure the defects of Gryphon. At most, Gryphon teaches a workflow modeling language. The Gryphon language is for the visual presentation of business applications. However, Gryphon does not teach or suggest establishing a plurality of patterns within the pictorial representation.

Indeed, Gryphon specifically teaches that each "element primitive" is independently adjustable and can be modified or enhanced without damage to the overall process. Therefore, Gryphon unequivocally teaches away from any motivation or suggestion for establishing patterns, as any such pattern would destroy the independence of each element primitive. *See*, abstract of Gryphon.

Calver in view of Gryphon fails to teach or suggest, at least, establishing one or more composite patterns that are identifiable within the pictorial representation, each composite pattern being indicative of a grouping of a recurring combination of one or more business patterns and one or more integration patterns, the patterns indicative of various implementations of the business description as claimed in claims 1 and 9. As noted above, Gryphon teaches that each element primitive is independently adjustable without damage to the overall process – a teaching that directly teaches away from the claimed elements.

Furthermore, Calver in view of Gryphon fails to teach or suggest establishing one or more application patterns that are identifiable within the pictorial representation, each application pattern being indicative of a partitioning of an application logic and a data together with the styles of interaction among a plurality of logical tiers, as further claimed in claims 1 and 9. Neither Calver nor Gryphon, nor their combination, teaches anything relating to styles of interaction among a plurality of logical tiers or that the application pattern is indicative of a partitioning of an application logic.

Additionally, Calver in view of Gryphon fails to teach or suggest identifying integration patterns within the pictorial representation, as claimed in claims 4 and 13. Calver in view of Gryphon further fails to teach or suggest identifying information technology driver corresponding to one or more business requirements, or identifying an application pattern associated with the first integration pattern having a best match to each business driver and each information technology driver as claimed in claim 7.

Furthermore, claims 2-8 depend directly or indirectly from claim 1 and are therefore allowable over Calver in view of Gryphon for at least the same reasons as claim 1.

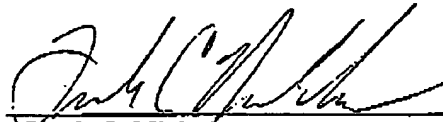Withdrawal of the rejections to claims 18-19, 1-8, and 9 is requested.

CONCLUSION

The Applicants respectfully submit that claims 1-20 fully satisfy the requirements of
35 U.S.C. §§102, 103 and 112. In view of the foregoing, favorable consideration and early
passage to issue of the present application is respectfully requested.

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